



BARTERING FOR 'FREE' INFORMATION: IMPLICATIONS FOR MEASURED GDP AND PRODUCTIVITY

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Introduction

- Very relevant topic in times of increasing digitalisation and data availability.
- The paper provides a good overview of relevant issues in valuing and recording ‘free’ information.
- It explains that including ‘free’ information would have little impact on either GDP or total factor productivity ...
- ... but it also states that it does “*not take any firm stance on whether [free] information [...] should be included in GDP*”.
- This latter question is very important in relation to the current debate about the “mismeasurement” hypothesis.
- In that regard, the paper raises some interesting questions.



What triggered the issue?

- ‘Free’ information is currently not included in final consumption expenditure
- As it benefits consumers and its importance has increased over the last decade, the question has arisen whether this should actually be included in GDP

Therefore, the paper regards ‘free’ information as a barter between information producers and consumers ...

“Marketing-supported information as payment in-kind for services produced by households”.

... and assesses its impact on GDP.



Production boundary

How does the inclusion relate to the production boundary?

2008 SNA, par. 6.24: “*Economic production may be defined as an activity carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital, and goods and services to produce outputs of goods or services.*”

This raises two questions with regard to the paper:

- “Is information an output?”
 - If information is an output, it would indeed be (partly) consumed by households
- “Is marketing viewership an output?”
 - Do users receive information for free (transfer in kind) or as compensation for viewing marketing (producing ‘marketing viewership’ output)?



Is 'information' an output?

- Information has economic value so could be regarded as output.
- However, how to delineate 'information'?
 - Marketing provides information, but it is an intangible good that may be created via several other channels as well:
 - Wikipedia
 - Official statistics
 - 'Grandmother's recipes'
 - Asking directions on the street
 - ...
 - These may all be substitutes for purchasing information on the market ... should these all be included?
 - What about unwanted marketing such as junk mail? One can assume this to have economic value.



How to value 'information'?

- Value derived from supply side:
 - Look at production costs
 - However, does this properly reflect market value (i.e. the price if the information would have been bought at the market)?
- Value derived from demand side:
 - Look at amount of time that consumers spend on watching the information (opportunity cost approach)
 - However, this may focus more on consumer surplus than economic value
- This also leads to questions such as:
 - What happens if the amount of information doubles, but the time that consumers spend on watching information remains the same?
 - What if one type of information (website?) is only watched by one person versus information watched by millions of people?



Is 'marketing viewership' an output?

Even if 'information' is regarded as output, do consumers get it for free or as a compensation for viewing marketing?

- Who is initiating the creation of marketing? Is it supply-driven or demand-driven?
- Is there a risk of double counting: Households would get paid for marketing viewership and consume information, but don't they also pay for this information indirectly via purchasing the specific products (e.g. purchasing a car)?

The answer to this question does not seem straightforward. Alternative would be to record it as a transfer in kind.



Other questions

- If information is regarded as output, should its use be recorded as final consumption, intermediate consumption or investment good?
 - Intermediate consumption: Information may be used in production processes, also in relation to unpaid household activities
 - Final consumption: Information directly consumed
 - Investment good: Information ‘held’ for a longer time (recipes, some information available on internet)
- How does it relate to the income concept?
 - Are households getting richer if they ‘consume’ more information (or marketers provide more information)?
 - How would you allocate the consumption of information across various household groups? May there a re-distribution effect?
- What about cross-border flows of information?



Conclusions

- The digital economy is posing a lot of questions to the statistical world
- This paper provides important insights in the possible impact of including ‘free’ information in GDP and in some of the underlying conceptual questions
- Further work is needed to solve the conceptual issue(s) on how to deal with ‘free’ information (and related topics)
- Experimental results are very helpful to provide insight in the magnitude of the issues



Thank you for your attention

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